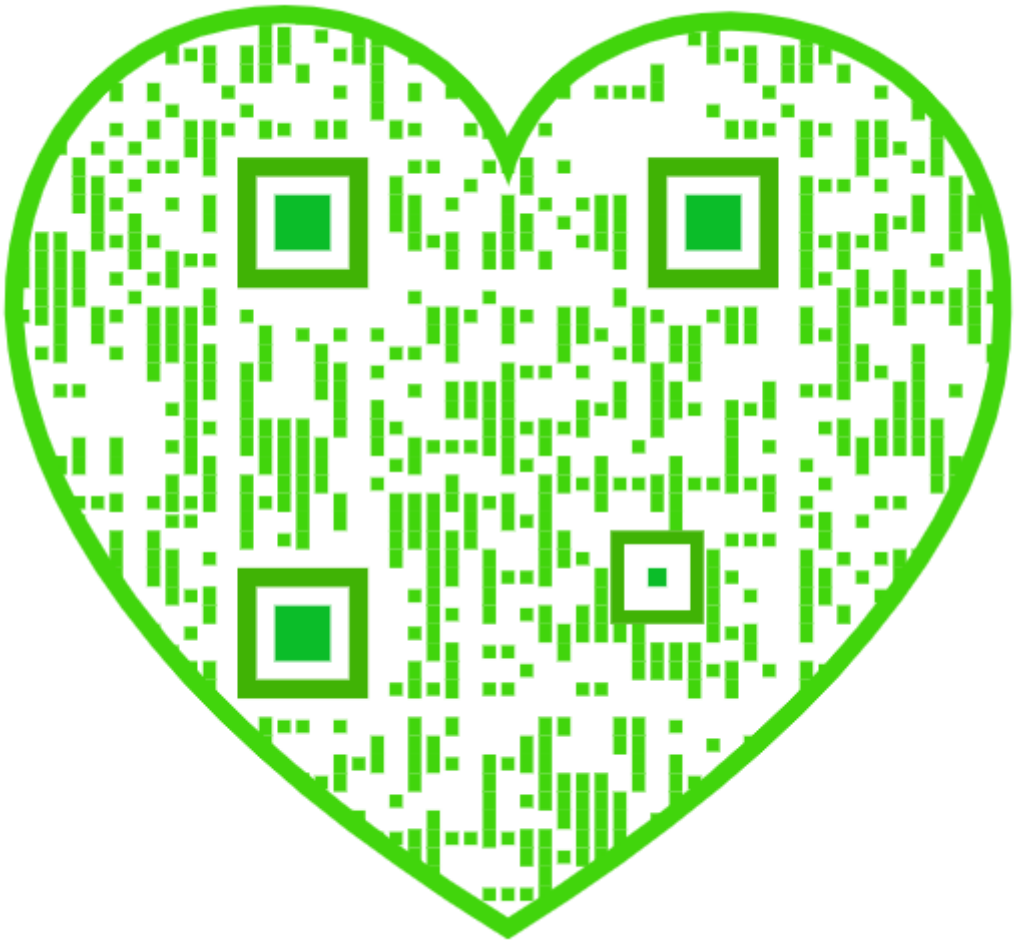
THE HORSE
FOR WORK OR PLEASURE

VINTON'S COUNTRY SERIES.



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Vinton's Country Series

THE HORSE

FOR WORK OR PLEASURE

WITH CHAPTERS ON

FEEDING, MANAGEMENT, DISEASES,

AND ACCIDENTS

LONDON

VINTON & CO., LIMITED

8, BREAM'S BUILDINGS, CHANCERY LANE, E.C.

A SERIES OF PRACTICAL HANDBOOKS.

VINTON'S COUNTRY SERIES.

THE HORSE: for Work or Pleasure.

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FERRETS AND THEIR MANAGEMENT.

VINTON & CO., LTD.,

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PREFACE

THE increasing interest manifested in the breeding and rearing of live stock and in the other branches of farming has induced the publishers to prepare a number of cheap volumes, under the title of "Vinton's Country Series," which are intended to afford elementary information on the various subjects dealt with. These, it is hoped, will be found useful to those who have not studied the subjects in more exhaustive treatises, and will lead them to seek for further guidance and instruction in such works as "Morton's Handbooks of the Farm," and the "Live Stock Handbooks," also issued by them, and in which fuller information can be obtained. On small holdings as well as on larger farms a more diversified system is now necessary, crops and live stock having to be carefully managed if the enterprise is to result in profit. It is therefore essential that the best practice should be studied, and in these little books the various breeds of stock are described and their character and capabilities indicated, while brief hints on management are given. The present series deals with horses, cattle, sheep, pigs, goats, and volumes also treating of dogs, poultry-keeping, bee-keeping, and many other rural topics, such as butter and cheese-making, market-gardening, etc., will be taken up in turn.

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THE HORSE

FOR WORK OR PLEASURE

CHAPTER I

BREEDS AND VARIETIES OF HORSES

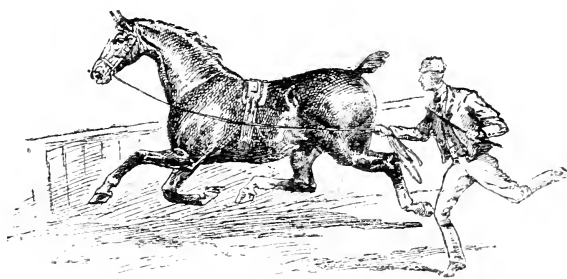
Ride and Drive Horses.

Perhaps the most popular and useful horse in existence—although he is of course looked down upon by those who are so happily situated as to be able to afford the luxury of an extensive stable filled by all sorts of animals—is the ordinary ride and drive horse, which is not only equal to performing a good deal of useful work between the shafts, but can provide his master with a little healthy exercise in saddle as well. In this category the Hackney, the cob, and the pony are included, as well as many, in fact all, half-breds and nondescripts which belong to the ranks of light horses.

The Hackney

is one of the oldest varieties of horse; he can trace his pedigree back to the celebrated Flying Childers who was foaled in the beginning of the last century, and forms the corner-stone of many a Thoroughbred as well as Hackney pedigree. In fact, it may be

accepted as correct that the two last-named varieties of horse were established about the same period, the sires, so far as the foundation stock is concerned, being either the imported Arabians and Barbs of the period or else their immediate descendants. East Anglia was the original home of the Hackney, and many references to the doings of the ancient crack specimens of the breed are contained in the columns of the Norfolk papers which appeared in the earlier years of the present century, by which time the breed

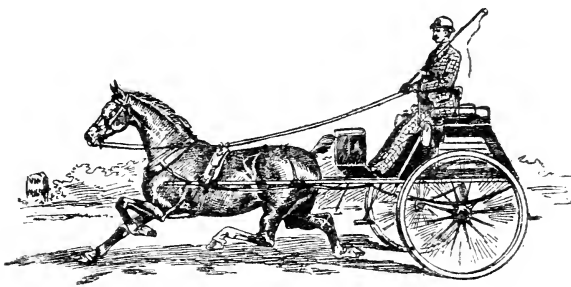


HACKNEY.

had evidently become well established. From Norfolk the Hackney found his way into Yorkshire, and thence all over the country, so that in the present day there is scarcely a county in England where at least one breeding stud is not to be found, whilst in both Scotland and Ireland, to say nothing of abroad, the admirers of the Hackney are to be numbered by the thousand. The two great gaits of the Hackney are the trot and the walk, and a good specimen of the breed should be able to trot faster than he can gallop, and walk fast enough to be able to rest himself and yet get over the ground when he is on a journey. About 15.3 hands is the maximum height to which the Hackney is bred. Good specimens have been

bred which have stood higher at the shoulder, but 15.2 or 15.3 hands are quite enough for this class of horse.

One of the chief points of the Hackney is his head, which should show plenty of breeding combined with substance; while, in the case of a stallion, any approach to an effeminate appearance about the head is most objectionable. The ears are small and pointed, the neck of fair length, nicely bent, with plenty of substance in it, but at the same time free



HARNESS HACKNEY.

from coarseness, whilst the shoulders should be clean, long and sloping; the back is of moderate length, so as to give sufficient room for a heavy saddle, the loins are extra strong and the quarters long and powerful, the ribs being nicely sprung, as flat sides are a bad fault. The chest is of a nice breadth and depth, so as to provide plenty of room for the heart and lungs; the legs should be short, heavy and flat in bone, with nice long pasterns and good-sized feet; the arms and thighs being well clothed with muscle, and the joints large and truly formed. Regarding the great question of shoulders, it must be added that whilst the long sloping shoulder is, in the case of the Hackney, as in all other horses, a matter of vital

importance when the animal is required for riding purposes, the necessity for their being thus formed is not so great in the case of a harness horse; in fact, in the case of animals which are expected to draw heavy loads, many hold that a rather upright shoulder fills the collar better than a sloping one, but the possessor of the latter is always the better mover and usually the faster horse. In one respect the Hackney is admitted on all sides to be pre-eminent, his trotting action being superior to that of any other variety of horse in the world. A good Hackney uses his shoulders, knees, and fore pasterns to their utmost capacity when set going, whilst, as regards his hind legs, it can only be said that he doubles his hocks well under him and does not leave them behind, as many fair movers in front are inclined to do. A disposition to go rather wide between the hocks is visible in some very fine movers, and especially when they are pressed to go fast, and, therefore, a buyer need not pass by a Hackney that is good in other respects because of this. Finally, it may be said that the majority of Hackneys are marvellously good-tempered, though they are high-couraged horses, and therefore are worthy of the confidence that is reposed upon them by their admirers.

The Cob

may be described as being something between the horse and the pony in stature, standing as he does about 14 hands at shoulder, but he is usually a very thick, stocky built animal, his middle-piece being not unlike that of a dray horse in miniature. Of course some cobs are far stouter in their build than others, but plenty of substance is a great desideratum in this class of horse, whose vocation in life it often becomes to carry middle-aged and elderly men of considerable weight upon his back. Strength rather

than speed is therefore the most valuable characteristic of the cob; but it must be remembered that such strength should not be associated with coarseness or underbreeding. The latter would probably be accompanied by a sluggish, mulish disposition, which is not wanted in a cob, which should be a very temperate, but yet high-couraged horse, steady as a brake horse, yet carrying his head well, as though he could do anything if he wished to, and above all things a cob must be a first-rate walker if required for riding purposes. As a trapper the cob is greatly appreciated by drivers who do not desire to travel very fast, and yet are compelled to utilize the services of a powerful animal, whose good sense they can rely upon, but it is as the beau ideal of a safe conveyance for an elderly gentleman that the cob will always be most popular.

The head of a cob should be neat and intelligent-looking, but large enough to be proportionate to his size, his neck should be fairly long, else his value as a saddle horse will be diminished, and his shoulders of course as long and sloping as possible. His chest is wide and deep, his middle piece very massive, with well-sprung ribs and big loins and quarters. He should be very short upon the leg, with great bone and muscle, his limbs and joints being perfectly clean, for it must be remembered that, though a little horse, his position as a weight carrier is *facile primus* in the equine world.

The Galloway

may be briefly described as a bloodlike animal, half horse, half pony, and standing about 14 hands at shoulder. Many so-called racing Galloways are simply diminutive thoroughbreds, which are too small for the Turf and therefore have been relegated to another sphere of usefulness. Being a light-framed animal and full of quality, the Galloway is an

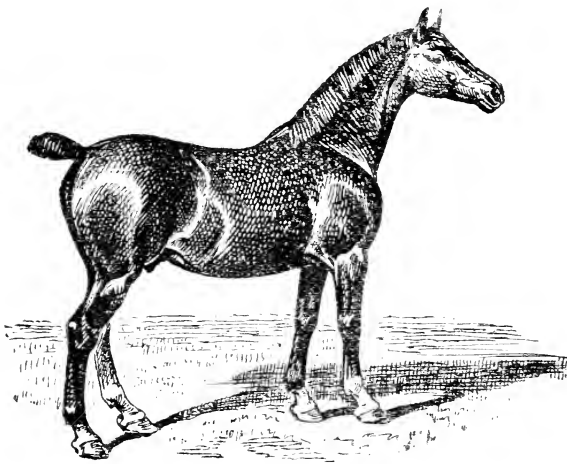
excellent mount for a boy or girl, and in leather is a most attractive-looking little horse, for his trot is usually superior to that of the thoroughbred, as the little one uses his knees and hocks better when at this gait than does the taller animal. The expression Galloway, however, is not often heard in general use, and consequently it is unnecessary to refer to these animals further in a work of an elementary description.

The Pony

is a most difficult animal to treat of, for no one exactly seems to know what constitutes a member of this race. In some parts of the country a horse is styled a pony if he does not stand 15 hands; 14.2 is the limit in another district, whilst elsewhere 14 hands is considered the correct height, and so on. Consequently many differences of opinion exist, and are likely to continue for ever in pony-breeding neighbourhoods; the heights of animals all bred the same way will be found to vary considerably. The general acceptation of the term pony may, however, be taken to be an animal standing under 14 hands, which certainly leaves a very fair margin for the word, as many Shetlands do not much exceed 9.2 hands. In a work of this description it would be impossible to undertake a description of the various breeds of pony, such as those which are classified as the New Forest, Exmoor, Dartmoor, Welsh, and Irish; not to mention the Shetland, which, as the most diminutive of them all, possesses a strong individuality of his own. The great advantages of possessing a pony—provided always that he is big enough to do one's work—is that these little animals are always hardy, that they eat very little, and that they are active, big-hearted, high-couraged bantams, to whose bottom it is very hard to get if they are treated fairly well. It is difficult, moreover, to put a

pony out of his place if it so be that his lack of size does not put him out of court, and, in fact, no variety of horse is capable of being more useful to his master or affording more pleasure to a lover of the equine race than a good pony.

The description of a pony is difficult to give, as there are a few characteristics amongst the special



PONY.

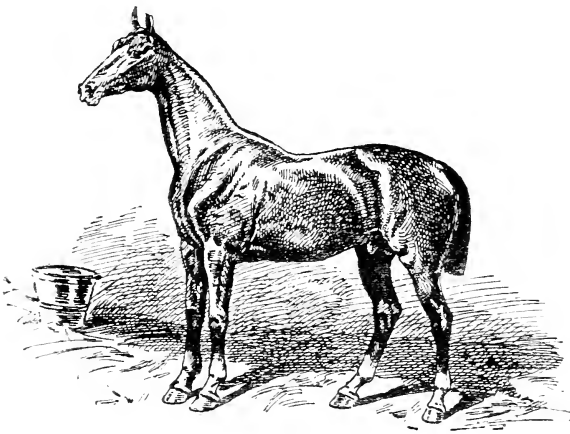
breeds referred to which are not shared by all alike. The great point, however, to be sought for in an animal of this description is quality combined with action, and if a person wants to procure a sound pony possessed of these merits he will assuredly have to pay high for the privilege of doing so. Being so small in stature, ponies are very rarely utilized by grown-up persons as saddle horses, and are consequently usually relegated to an honourable position between the shafts. The most valuable ponies are

those which resemble thoroughbreds in their conformation, but of course the daisy-cutting form of trot affected by the latter would ill become an animal which is supposed to atone for its paucity of inches by its action and speed. A sweet head is an essential property of a pony, and so is a good eye, good shoulders, and a level back. The possession of a great amount of substance is not so indispensable a point in a pony as in other varieties of horse, but it must be remembered that what bone it does possess must be correct in shape. Moreover, as many specimens of the breeds alluded to above are inclined to be cow-hocked, *i.e.* turn their hocks inwards, and as this is regarded as an unsightly defect, the man who may be looking over a pony with a view to buying him should take notice of this portion of the animal's anatomy. It often occurs too that the feet of ponies, although free from disease, are very small, and perhaps a little incorrect in shape; attention may consequently be directed to this, in case a purchaser may not think of examining the feet as closely as he might.

Saddle Horses.

Beyond a doubt the Thoroughbred and the Hackney are the stock from which all the best saddle horses in England are sprung. The former's history and appearance are both so thoroughly understood that they need no recapitulation here; whilst the Hackney is fully dealt with in the section on "Ride and Drive Horses," and so many animals belonging to this variety belong to the latter class of animal. The pony and the cob are also mentioned upon another page, and consequently the saddle horse *par excellence* must be accepted as being either a cleanbred Thoroughbred or Hackney or else a cross of one of these varieties. There is, of course, the Arab to

be considered, but the stature of this breed is so small by comparison with that of the English animals, and he is so infrequently met with in this country—though his numbers are increasing—that



THOROUGHBRED.

he can scarcely be regarded as a generally marketable commodity at present.

The Hunter

is of course the most popular variety of saddle horse that exists in England, and if the man who wants a hunter does not ride, inclusive of saddle and all impedimenta, more than thirteen stone or so, he should find it fairly easy to procure a clean-bred horse to carry him. A Thoroughbred, however, up to greater weight is an expensive animal to buy, and consequently a half-bred, sired by a Thoroughbred, is the horse for the ordinary mortal to seek for; but the value of the latter is very considerably higher than that of the light-weight animal.

A good, sensible head is almost a *sine qua non* in the perfect hunter; his neck must be long enough to give him a chance of recovering himself if he stumbles; his shoulders must be long and sloping, this is most essential, whilst his chest should be broad and deep, the girth of a horse of this class being a very important feature in his composition.

HUNTER.

A powerful back and loins are, of course, to be sought for in a heavy weight, whilst a short set of big flat legs, placed on feet of nice size and shape, are indispensable to a hunter. His quarters also should be powerful, his gaskins big, his hocks well developed and clean, whilst all his limbs should be well clothed with muscle. The more strength a horse of this description has behind the saddle the

better, for much of a hunter's action and utility lies in the propelling power he possesses. Many a valuable hunter bears traces of the firing-iron upon his legs, but these by no means need be regarded as evidences of unsoundness, as the operation of firing is frequently resorted to as a precautionary measure.

The question of quality is one that should not be passed unheeded by the purchaser of a hunter, as an underbred, common-looking animal is not infrequently as deficient in gameness as he is plebeian in appearance; and a hunter that will not struggle when the pinch comes is scarcely a safe animal to be on at the end of a tiring day. The gallop is, of course, the chief point in the action of a hunter, who, to be fit for his work, should be good all round, and use his hocks freely as well as his shoulders and knees. In mentioning this it may be remarked, that many a horse which only shows up moderately at the trot or canter becomes quite a different animal when fairly set going, and therefore in looking over a hunter it is well to see him fully extended before making up one's mind.

Considerable importance should also be attached to the walk of a hunter, as it frequently happens that hounds run into their fox at some place situated a long way from home, and most men who have experienced the misery of getting back on a tired animal that is a bad walker would not care to repeat the performance were it possible to avoid it. Finally it may be suggested to any one who is attempting to form an opinion of the merits of a hunter, or, in fact, any other saddle horse, that the most satisfactory of all methods for settling the matter is to get on him and see how he moves then. Five minutes in a ten-acre field will tell any man more about the action of a horse he is riding than an hour spent in criticizing his merits and defects from a position on *terra firma;* and this important fact

may well be taken into the consideration of would-be purchasers. About 15.3 hands is a good height for a hunter.

The Hack

exists in so many varieties that his name is legion, for the variety embraces almost anything with good shoulders and exceptional manners. The lady's horse is, of course, a bloodlike attractive animal, with a good mouth and quality all over. He need not be a weight carrier, nor need he be so tall as the hunter, nor again is a superabundance of bone an essential feature in the composition of the lady's hack. His manners must be perfect, his canter elegant, and his general appearance aristocratic, all of which excellences are doubtless received from the thoroughbred, the blood of which enters largely into his composition.

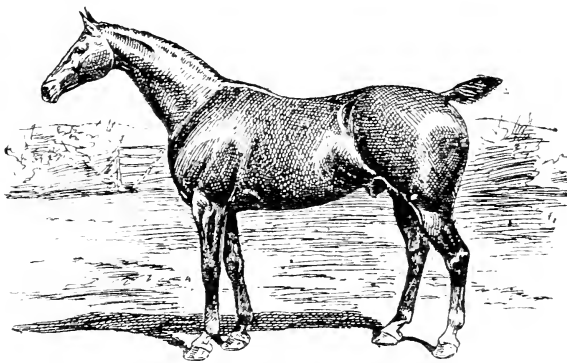
Polo Ponies

Much progress has been made in recent years in the breeding of polo ponies, for which there is an increasing demand, following the extension of the sport. They have to be bred to a particular height, the Hurlingham rules prescribing that they must not exceed 14 hands 2 inches. The first object in starting a polo pony stud is to pick up mares that have been regularly played, and answered the questions asked of them. Care should then be taken in selecting a stallion that is a known good stock getter, or, if possible, of pony size and well bred. Good results have been obtained from using a pony stallion, which, though only half-bred, was possessed of excellent blood, the sire being thoroughbred and

a winner of many races on the flat, while the dam was a well-known polo pony; but in using a half-bred the greatest care should be taken to cross with mares of quality. The Polo Pony Society's shows clearly prove that it is quite possible to breed to type.

The Arab.

The Arab has not only done good service to the



POLO PONY.

horses of this country, but he is capable of performing more excellent work if judiciously bred from. As a saddle horse his manners are excellent, and it may be conscientiously said of him that, in his proper place, he is a valuable horse. The smallness of his stature is against the Arab, but his height is increasing owing to the exertions of English enthusiasts, whilst as a sire for that very marketable commodity, the polo pony, this class of horse owns no superior; whilst the bloodlike heads and excellent legs and feet of many Arabs attract the public

towards them. Indeed, as a mount for ladies who do not study the size of their horses, or for girls and boys, the claims of the Arab should not be overlooked.

Harness Horses.

Of course most varieties of horse are more or less adapted for service between the shafts, but the Cleveland Bay and the Yorkshire Coach Horse are both the harness horses of England *par excellence*, and as such are entitled to special reference here.

The Cleveland Bay,

which is undoubtedly a very old breed, is more generally to be found in Yorkshire than in other parts of the country, but at the same time there are many horses of the kind bred far away from Yorkshire. He is a big upstanding animal showing plenty of quality for his inches, and he is a fine mover if not unduly pressed, though a Cleveland Bay can scarcely be regarded in the light of a saddle horse, and he is therefore very seldom used for any but draught purposes. According to Mr. W. Scarth Dixon, in "Light Horses," * the Cleveland Bay stands from 16.1 hands to 16.3, and rarely exceeds the latter or falls short of the former height. His head is not one of his chief beauties, as it is inclined to be plain, but it is long and well carried. The back and loins are powerful, and his quarters long, level and muscular, whilst his shoulders slope well, and he stands on short, flat-boned legs. As regards his action it cannot be contended that the Cleveland Bay can approach the Hackney in the way of bending the knee, but the former breed uses his shoulders

* Live Stock Handbooks, "Light Horses: Breeds and Management," published by Vinton & Co., Ltd., London. Price 3*s.* 6*d.*

and hocks well, and is an excellent mover both at the walk and the trot. In colour he is, of course, a bay of either a lighter or a darker shade, and occasionally curious-looking zebra-like stripes are visible on the arms and thighs. Sometimes in the darker bays similar stripes or marks are found upon the quarters, and not unfrequently there is a dark stripe down the back. The presence of a few white hairs are visible about the pasterns, but although these are not regarded as disqualifications, they are much objected to by many judges. The Cleveland Bay, it may be added, is a very powerful and active horse, and may be used, when there is no other work for him, for ploughing, though if the soil be extra heavy clay he is scarcely heavy enough for such an undertaking.

The Yorkshire Coach Horse,

although not so old a variety as the Cleveland Bay, is asserted by its supporters to be a breed possessing an existence of a hundred years. There is room for believing that the Cleveland Bay had a good deal to do with the origin of the Yorkshire Coach Horse, but the precise origin of the latter breed is decidedly obscure, and in hazarding a conjecture regarding its establishment a good deal must be left to imagination. Taken all round, the Yorkshire Coach Horse may be described, as Mr. W. S. Dixon puts it very happily in "Light Horses," "as a Cleveland Bay with more quality, *i.e.* with more Thoroughbred quality."

The head of the former is smaller and more blood-like than that of the Cleveland, and the crest is more arched. He is also a narrower horse, with less heavy bone, and, generally speaking, possesses more style in his action than the latter horse. In colour the Yorkshire Coach Horse must be either a bay or a brown, and a stallion heavily marked with white would be rejected by a careful breeder.

The above two varieties may be taken as representing the two great pure breeds of English harness horses, but it must be remembered that their size and formation adapt them more for heavy barouche and landau than for mail phaetons or dog-cart work. Of course half-bred animals of either breed are far more commonly met with than pure Cleveland Bays or Yorkshire Coach Horses, and it may be added that a most useful serviceable animal is a first cross between the two breeds, as is that between a Hackney sire and a Cleveland Bay mare.

Draught Horses.

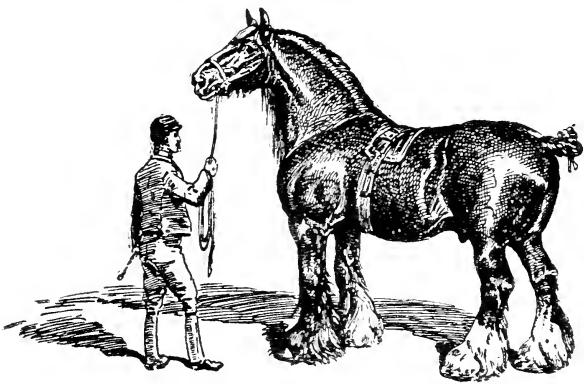
The three great recognized varieties of draught horse are the Shire, the Clydesdale, and the Suffolk, all of which have their supporters, and all of which are grand horses in their respective spheres.

The Shire Horse

is undoubtedly a most ancient variety, and is regarded by many authorities as being a direct descendant of the old English war horse so graphically described by Sir Walter Gilbey in his work upon that now extinct variety, as the Shire horse has evolutionized his ancestor out of all recognition. The Shire stallion of the present day, according to "Heavy Horses," * a standard handbook upon draught animals, should be at least 17 hands at shoulder, from 11 to 11½ inches below the knee, and from 12 to 14 inches below the hock. The measurements of the mare will not be so great, but she must, of course, possess plenty of substance likewise. The amount and quality of the hair upon the legs is a

* Live Stock Handbooks, "Heavy Horses: Breeds and Management," published by Vinton & Co., Ltd., London. Price 3*s.* 6*d.*

great point of importance, as it should be profuse, not harsh to the touch, straight and not at all woolly in texture. The head of a Shire horse is of a good useful size, a too pretty-looking headpiece not being desired. The chest is wide, the middle-piece exceptionally powerful and extra deep behind the arms, the shoulders straighter than those of a general purpose horse, so as to adapt themselves to the purposes of drawing heavy loads, the fore legs short,



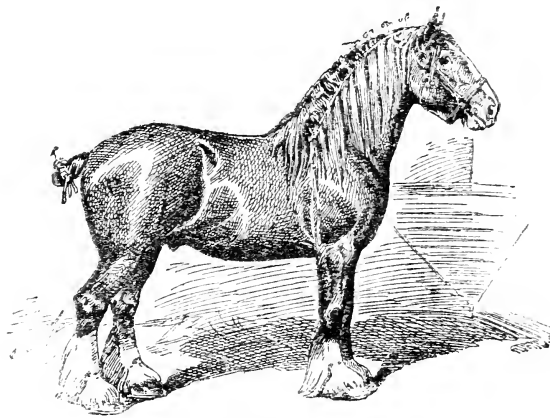
SHIRE.

very big, with good sloping pasterns and big healthy feet, whilst the hind legs should also be powerful, and the hocks especially well developed and quite clean, any tendency to turn the latter joints either in or out being highly objectionable. A free, level walk is a great characteristic of a first-rate Shire horse.

The Clydesdale,

which is to be found in perfection in the south-western districts of Scotland, possesses, according to a writer in "Heavy Horses," a head of medium

length and broad between the eyes and the muzzle. An open, level countenance, vigorous eye, and large ear are also greatly valued, and the neck is somewhat arched. The shoulders of a Clydesdale are oblique, laying well back on the withers, whilst the chest is both wide and deep, his legs are short, flat in bone, and feathered with silky hair, his pasterns are long,



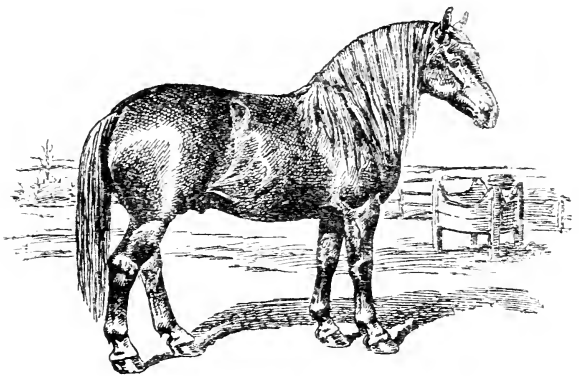
CLYDESDALE.

and his feet large, round, and open, with particularly wide coronets. The tail is set on rather high, the quarters powerful without being coarse, and the thighs and back legs strong and muscular. The action of a Clydesdale is more showy than that of a Shire horse, and a good one is always a very fast walker, whilst many shape extremely well at the trot.

The Suffolk, or Suffolk Punch,

as the variety is usually styled, is a far lighter breed than either the Shire horse or Clydesdale. In colour these horses are invariably chestnut, and they

can be traced back as far as the year 1720, thanks to the existence of the *Ipswich Journal*. The breed appears, says a writer in "Heavy Horses," to be indigenous to the eastern districts of Suffolk, but it is admitted that little can be said concerning the origin of this horse. The Suffolk horse, the writer just referred to says, "is a short-legged, clean-boned animal of ample size for any agricultural work in any district in England, and admirably fitted for



SUFFOLK.

active town work as well. He should be deep in the carcase, wide in front, square behind, with hard short legs, close knitted joints, and devoid of all tendency to coarseness. Unless extremely well put together, anything over 16.1 hands should be viewed with suspicion." The temperament of the Suffolk is usually very docile and his patience is great, added to which he is a long-lived horse, and if taken care of can be used for van work until he arrives at a considerable age.

CHAPTER II

HOW TO BUY A HORSE

THE first question which a person who wants a horse should ask himself is, "What do I require such an animal for?" and having answered this to his satisfaction, he should then make up his mind as to what price he cares to give. These two important questions are, however, very often the ones which prospective buyers omit to put to themselves, and the result is that they frequently find themselves in the possession of an animal which neither suits their work nor their stables, and for which, moreover, they have paid more money than they can afford.

A man who desires to purchase a horse for heavy draught purposes will, for instance, be scarcely likely to be suited if he invests in a Suffolk, whilst he who wants an active vanner would be acting most unwisely if he expends his money on a Shire. So the person who has to use his horse in saddle will regret the purchase of a horse whose shoulders may not be properly placed, or whose pasterns are short and straight, whereas these defects would be passable in a trapper in which smoothness of action is not so indispensable a product. And so on *ad infinitum*, there is a place for every sort of horse, and it is wisdom on the part of the owner if he sees that every animal in his possession is in his proper place. So many difficulties, however, beset the inexperienced horse owner that he may be excused if he

makes mistakes at the commencement of his career, and few men, indeed, who have had extended transactions in horse flesh can candidly lay their hands upon their hearts and declare that they have not had reason to regret some, at least, of their earlier bargains. One golden rule to bear in mind in purchasing a horse is never to trust to your own impressions as regards his soundness. The devices of some sellers are so ingenious that experienced men are liable to be deceived, and therefore the novice has no chance whatever in their hands. Consequently, let it be urged once more that the veterinary surgeon's fee is money well spent; but remember always that the opinions of some professional men are worth a great deal more than others when the soundness of a horse is under consideration.

If a horse is required to be used for saddle purposes, see that he has a good, long, sloping pair of shoulders laying well back at the withers. Choose an animal with plenty of depth of chest, a powerful level back, long enough to carry the saddle comfortably without cramming it on the top of the withers in front or on the quarters behind. Seek for forelegs placed well under him, good shapely knees, lengthy pasterns and healthy feet. A tucked-up loin is to be avoided, as is a short neck, but the quarters should be long and powerful, the thighs muscular, and the hocks clean, flexible, and neither turned in nor out. An intelligent head is also a point to be sought for particularly in a saddle horse, as a sensible, good-tempered beast is usually a safe conveyance, whereas a sour dispositioned, lethargic animal is precisely the reverse. The last, but by no means the least important point to be paid attention to, is the position of the fore feet, the toes of which should point straight in front of the animal, neither in nor out, as either of the latter formations are serious defects in a saddle horse. The question of

action is more or less one that must depend upon the rider and his views, for the elderly gentleman in search of a smooth-actioned park hack would shrink in horror from a high-actioned Hackney such as would delight his son. A great point that should be kept before a man who is watching a horse move with a view of purchasing the animal is to satisfy himself that the action is true all round. A horse that gets away in front and leaves his hind legs behind him owing to an inability to tuck his hocks under his body, is not the sort that could by any possibility be described as a good mover. Then, too, there is the flashy mover in front—all action and no go—which lifts his knees almost as high as his bit, and smashes his feet down in nearly the same place as he took them up from. This is, of course, a flat catcher pure and simple, and if his action is watched it will be found that he does not use his shoulders, whilst in the majority of instances he has none to use. Short, straight shoulders and upright pasterns are never good, and a shelly middle-piece which provides no room for the heart and lungs are always to be avoided. A narrow chest is usually associated with speed, but if an animal is as narrow-chested as the famous mare Crucifix, which was so phenomenally formed in this respect that she would fall whilst galloping as a foal, he will never be fit for much exertion unless he has plenty of depth about him to make up for the deficiency of breadth.

It would be useless to attempt to expatiate upon the artifices resorted to by unprincipled persons to conceal the infirmities of their horses, as a volume as bulky as an encyclopædia might be filled by exposures of such malpractices, and then the beginner would be very little better off, as he would be still deficient in experience to detect them. Consequently he, it may be repeated, will be acting wisely in availing himself of the services of a qualified veterinary

surgeon of position. If he is left to his own resources, however, he cannot exercise too much caution as to whom he has transactions with, and he will be acting very unwisely if he buys a horse from a stranger, or even under the hammer unless the animal is sent up by some reliable person and has a warranty with him. Many a serviceable animal, and more especially those used for draught, are worn more or less about the legs, the hocks in particular having been affected by the constant strain of starting a heavy load; and here again the novice would be hopelessly at sea if left to his own judgment in distinguishing the infirm animal from the workable. The beginner, however, should never allow himself to be persuaded into buying a crock at any price, for if he does so in the hopes of repairing the infirmities he will assuredly find, even if the horse is set upon his legs again, that it would have been cheaper for him to have started with a sound, even though a slightly blemished, animal. A palpably infirm horse can only be resuscitated to the advantage of his owner by skilled treatment, and if the beginner has to pay for this and place his veterinary surgeon's bill on the top of the price paid for the horse, he will be a very lucky man if he does not find his bargain a most expensive one in the long run.

The practice of permitting their coachmen to buy their horses for them is a common one, especially amongst business men, or ladies who have neither the time nor judgment to transact their own business. Although the custom is open to grave objection, as it is a direct temptation to a servant to lose sight of his master's best interests in the exercise of his natural desire to feather his own nest, it has one recommendation, and one only, in its favour. This lies in the fact that if a man selects a horse, he may be reasonably expected to procure one that he can drive and which is sound, else he would be liable to

dismissal for incompetence. Many owners of horses, however, are unfortunately completely under the power of their servants, and simply so because they themselves are entirely ignorant of all subjects connected with the noble animal, and are ashamed to display their ignorance to those about them. Needless to say that these are the persons who are easily fleeced, though why a man who, for instance, is a clever lawyer but knows nothing of horseflesh, should be reluctant to ask advice, and, if necessary, pay for it, from a reliable acquaintance who understands all the details of a stable, but is ignorant of law, is a quite unintelligible illustration of human weakness. The horsey man is not ashamed of proclaiming his inability to expound the law; why should the barrister or solicitor be reluctant to be equally candid regarding his unacquaintance with matters equine?

In buying a horse from a respectable dealer who has a reputation to lose, the novice is pretty safe; but he will have to pay dealers' prices for his purchase, and that probably will not please a careful man. On the other hand, if he goes alone to an auction and buys under the hammer, he is very likely indeed to secure a ragged bargain, unless, as suggested above, the animal he selects comes from a reliable stable and has a warranty; but then this difficulty arises—the tyro, by reason of his ignorance, cannot discriminate between the honest men and the others. To a fair the beginner should never go unless under the guidance of a friendly mentor, who understands the points of a horse, and it is not always easy to find a competent judge with the time and money to spare to enable him to accompany his friend. Upon the whole the best and safest plan, except, of course, visiting a leading dealer and paying him his price, is for the novice to enlist the services of an expert in horseflesh, be he auctioneer

or private individual, and engage him to act as commissioner. A fixed price should be stated, and out of this the agent may have to pay himself or not, as arranged, whilst an undertaking to add a further *douceur* if the animal turns out satisfactory, will usually have the effect of stimulating the efforts of the person instructed with the commission. In a paper like the *Live Stock Journal*, many extensive horsebreeders are in the habit of advertising what animals they have for disposal, and in the columns of this periodical the novice may very possibly see a reference to the sort of animal that may suit him. It is always best to deal direct with the producer when possible, as the profits of the middleman are thereby saved, and if, as suggested above, the novice has a good adviser at his elbow, he will probably be better served by doing so than by adopting any other means, unless of course he happens to know of a horse that is likely to suit him, and takes the wise precaution of having the animal vetted before finally completing the purchase.

The price of a horse may be briefly stated to be just what he will fetch, and the novice who wishes to become an owner may consider himself to be a very lucky man if he succeeds in obtaining a bargain the first time of asking. He should consider himself fortunate if, acting upon his own judgment, he gets what he wants at a fair price, but he may bear in mind that a good useful horse at a fairly long price is a very much cheaper animal than a screw at half the money. The omnibus companies are content to pay an average of forty odd pounds apiece for horses, whilst the Government price for remounts is very much the same, and the class of horses that are serviceable for such purposes is scarcely adapted, useful though they be, for the use of gentlefolk who take a pride in the appearance of their animals, though at the same time it may be admitted that

many a very good-looking remount joins the colours in the course of each year.

If a person can get hold of a good-looking and sound harness horse standing 15.3 hands for seventy or eighty pounds, he should consider himself extremely fortunate, but for a first-rate article a much larger sum will have to be paid, whilst match pairs of bigger horses will run into three times the money and then be considered cheap. Horses of about 15 hands or a trifle over are as serviceable as many taller animals and command lower prices, not being so taking to the eye, whilst their strength is not so great, but for the one-horse man they come in very handy and often turn out satisfactory for ride and drive purposes. If a big animal is not required and a saddle horse is wanted, the Arab will be found a pleasant mount, but these horses are not generally popular in England and they are difficult to procure, not being plentiful; whilst a good—really good—pony is worth a small fortune to his possessor if he wants to sell him. Hunters, of course, realize fancy prices if they possess good characters, as any students of the prices reported as being realized at Tattersalls' and other horse repositories must perceive; whilst a hundred guineas for a good-looking, nice-mannered lady's hack is a price that most people would gladly pay; and at this figure a powerful, steady, elderly gentleman's cob would certainly be considered cheap. Such animals, it must be remembered, if procured at the figures mentioned, would not necessarily be above the serviceable stamp. High class commands high prices, and immediately quality is approached fancy figures become the order of the day. No beginner is, however, acting like a wise man if he invests large sums of money in expensive horses before he understands the animals and their management. If he does so it necessitates his delegating the direction of affairs to his servants, and

then half the pleasure of the horse lover is sacrificed. The person who takes a pride in his stud, be it large or small, and the one who gets most out of his horses, is he who buys for himself, who understands the details of stable management and exercises a supervision over the actions of his servants. The beginner cannot hope to qualify himself for such duties all at once, but experience is the greatest of all tutors, and if a man commences with a good useful horse or two, and sets himself to work to learn, will soon become interested in the doings of horses, and as time advances will be fully qualified to launch out more ambitiously and form, if he cares to do so and possesses the money to gratify his desire, a stud that will be the admiration, if not the envy, of his friends.

CHAPTER III

THE FOALING MARE

THE treatment of a foaling mare presents so many features of difficulty to a person who is entirely unacquainted with the subject, that it is not surprising that so few amateurs shrink from the idea of breeding foals. In the first instance a popular belief obtains that the services of the mare would be lost for quite a considerable time before and after her offspring is brought into the world; secondly, it is believed by many that great risk to the life of a mare is incurred by breeding from her; and thirdly, the amount of looking after she and her foal require has assumed the most formidable proportions in the minds of those initiated in the mysteries of breeding horses.

Regarding the above questions seriatim, it must be admitted, as is only natural, that a little rest must be permitted the foaling mare towards the end of the period of gestation and after the birth of the foal. The period, however, of her relaxation from work need not necessarily be nearly so prolonged as many persons imagine; but, on the other hand, as must be obvious to all, very heavy hauling or any severe tax upon her energies is to be deprecated, if the safety of the mare and well-being of her foal are matters for consideration, as of course they must be. Still, it not infrequently happens that the horse owner in a small way is compelled to work his

brood mare up to very nearly the day of her foaling, and set her to earn her living again within quite a few days of her youngster being born. Such a policy is both short-sighted and inhuman; short-sighted because the treatment is extremely likely to weaken the mare and affect the development of her foal, and inhuman because the condition of the mother should have ensured her a sufficient respite from hard work at a time when nature ordains that she requires repose. As regards the danger to the life of a mare, although it is of course impossible to deny that deaths do occur, even in the best regulated breeding establishments, it may at the same time be stated with every confidence that their number is reduced to a minimum when the mares are healthy and have been rationally treated. Proportionately, more animals in fact lose their health and lives from colds and want of proper care than from being bred from, and therefore the man who owns a good mare and is inclined to breed from her may take heart of grace and try his luck with confidence of success. There remains, however, the third of the alleged "difficulties" to be dealt with, namely, the trouble that is incurred by those in charge of the animal at the time of her bringing her offspring into the world. This will form the chief subject dealt with in this chapter, and when these have been read, it is probable that many a person who has not attempted to study the subject before may arrive at the conclusion that he has been unnecessarily alarmed by exaggerated stories that have reached his ears.

Before proceeding to deal with the treatment of the mare and her foal, it may be premised that many animals are so worried by the over-attention they receive at the hands of their attendants that serious consequences both to the mare and foal result. This circumstance points to the fact that quiet is

necessary if a happy termination of the troubles of a mare are expected; but, on the other hand, it will be seen in the following suggestions that an eye should be kept on the mare, and this will necessitate a certain amount of extra attention, and probably a few nights of broken rest for her groom. It is also a generally accepted fact amongst horse breeders—as it is amongst the raisers of all other varieties of stock—that the higher bred the mare is the more susceptible she is to the dangers of parturition; whereas the lower class animals usually suffer very little inconvenience, relatively speaking.

The first point to be considered is the best time for putting the mare to the horse, and it may here be incidentally mentioned that the period of gestation is as near as possible forty-eight weeks, a few days before or after the precise date being not infrequent. The production of a very early foal is not desirable except in the case of racehorses, which, like all other members of the equine race that appear in public, whether at shows or elsewhere, take their age from January 1, and are therefore required to be foaled as early as possible in order that the extra few months of existence may render them bigger than they might otherwise be, when opposed to later foaled youngsters of the same year. Whether this policy of early breeding is a desirable one or the reverse in the case of racehorses, this is not the place to discuss; it is sufficient to state that the practice prevails. There is no necessity, however, but rather the reverse, for condemning it so far as the breeding of ordinary horses is concerned. April or May are by far the best months for the breeder of the ride or drive or average utility horse, be it heavy or light, to try and arrange as the period of his youngster's entry into the world; and, to ensure this, the mare should visit the selected stallion either in the May or June of the preceding year.

It is the usual practice to have a mare served about nine days after she has foaled, as this is considered a favourable time, and likely to increase the chances of her conceiving. In the case of maiden or barren mares there is no such rule to guide the owner, who must therefore follow out the evidences of nature to the best of his ability; but as mares are usually disposed to accept the attentions of a horse pretty frequently during the spring months, there should be very little difficulty indeed about getting her served about the desired time. The most experienced veterinarian or groom is quite unable to decide positively for several months whether the mare is in foal or not, and therefore it is usual to present her to the horse once or twice at intervals of a fortnight after service, and if she refuses him, her owner will be then justified in hoping for the best; though unfortunately it must be admitted that even then disappointments not infrequently occur.

The in-foal mare usually becomes languid and more steady shortly after conception has taken place, and she is not so fretful and excited as formerly, though it sometimes happens that evidences of œstrum are present. The latter occurrence need not therefore necessarily lead an owner to decide that his mare is not in foal, though it is quite possible that he may be disconcerted thereat. When it becomes pretty certain that the mare is in foal, it is a wise policy to spare her any violent exercise if it can possibly be avoided, whilst it must be obvious to all that fast work can only be indulged in at the risk of her health and that of her foal. At the same time steady work of an ordinary character can be set her, in fact, exercise is necessary for her well-being at this, and every other, period of her existence. Should it not be necessary to work the mare at all for the last few months of her pregnancy she should be given her liberty in a field or paddock,

as level as possible and free from open drains and ditches, as the chances of ill befalling her are materially reduced thereby. It is a wise precaution too to see that all projecting stakes and nails should be removed from the fences and gates, and if there is a hovel in the field the sides of this should also be carefully gone over in order to prevent the possibility of injury to the mare, as her size will be increasing day by day.

When the day of foaling is close at hand the mare should be placed in a spacious box, which, though properly ventilated, should be free from draughts, where she can be under the observation of her attendant, and it may be here suggested that as it is undesirable to disturb her more than is necessary, it is a good plan to try and arrange for some peep-holes through which she can frequently be observed from the outside without her box being entered. As a rule a mare drops her foal whilst standing up, and generally, and especially when there are no complications, all is over in a very short time; the navel-string of the foal being broken as the foal drops gently on the straw.

The cause of joint ill in the foal is the entrance of specific germs into the wound at the navel or end of the navel string before this has been completely healed up after birth, and to prevent the admission of these dangerous organisms the greatest cleanliness is necessary not only of the wound itself, but of the stable or shed in which the foal is kept. If a number of foals are reared in the same establishment, the appearance of the disease should be the signal for immediate attention to the others. This should consist of daily dressing of the navel end or sore with some disinfectant, such as carbolic acid and olive oil, one part of the former to fifteen of the latter, applied with a bit of sponge; or, after the wound has been cleaned with tepid water, the part

should be well covered either with powdered boracic acid or equal parts of iodoform and starch powder, and covered with a piece of carbolized lint or fine tow maintained in its place by a wide cotton bandage round the body. In about a week there will be no more danger. This treatment should be resorted to soon after birth.

After a month from the birth of the foal, or perhaps three weeks, the mare can be put to gentle work again, but it is not desirable for her own sake or that of the foal that she should begin with too much hard work, or that the pair should be separated for a long time.

The in-foal mare, and especially if she is worked, should be well fed, but this does not imply that she should be gorged. On the contrary, she only requires enough to keep her in good condition and health, but it often becomes necessary that she requires more to eat than when she was barren, and the quality of her food should be good. If she is not at work she can subsist upon grass alone, but the addition of a little hay and oats is most beneficial all the same, whilst, if she is at work, they are imperatively necessary. Mashes, or bruised oats or barley mixed with pulped roots may also be given, and just before she is expected to produce her foal, mashes of boiled linseed and bran, to which an ounce of salt has been added, may be offered her. After the foal is born the dam should be allowed three feeds a day of oats and some hay, whilst if she is short of milk or is not on grass, mashes of boiled oats or barley mixed with sugar or treacle may be added to her diet with beneficial results. Water, pure, sweet, and cool, should always be within the reach of the foaling mare.

From the above it will be seen that the possession of a foaling mare does not present such formidable difficulties to the inexperienced, if so be that the

animal is rationally treated, as he may have been led to expect. Still, matters do not always proceed as smoothly as may be desired, and then, unless the groom is a practical man, the assistance of a veterinary surgeon should be invoked. It may be remembered too, that cases of abortion are not so infrequent as may be supposed; but it may be added that this misfortune is very often the result of unclean stables, or of the mare being exposed to the contamination of decaying animal or vegetable matter. Should the mare abort, any other mares upon the premises should be forthwith removed to a distance, else the mischief may spread, whilst the utmost care should be exercised in the disinfecting of her stable, and all her bedding, and the fœtus, etc., should be destroyed by burning. Doubtless, however, a veterinary surgeon has been called in, and he will most probably insist upon all this being done.

It has been observed that worms sometimes annoy foals exceedingly when they have attained the age of three or four months, or even earlier, but particularly when they are yearlings. The foals should have access to rock salt, and small doses of powdered sulphate of iron should be given morning and evening in a little mash. Ten to fifteen grains of calomel given in mash and repeated after an interval of ten or twelve hours is a very effectual remedy, from four to six ounces of linseed oil being administered six hours after the last dose.

The hoofs of foals require attention, and a little judicious management at an early stage may save much trouble and disappointment afterwards.

CHAPTER IV

FEEDING HORSES

THE amount and also the consistency of a horse's daily food should be regulated first by the size and breed of the animal, and secondly by the conditions under which he is being worked. When his labours are extra heavy the quantity of sustaining food should be increased, and if there is little for him to do he will benefit by having his diet curtailed. It is desirable, however, that whatever the amount given him may be, the meals themselves should be fairly frequent, for the peculiar formation of the horse's interior arrangements causes his stomach to empty quickly, and therefore as the digestive apparatus keeps at work, it is necessary that something should be provided for it to employ itself upon. Another thing that should be borne in mind is the propensity displayed by horses for bolting their corn, and consequently it is necessary to make it a practice to mix chaff with the grain in order to ensure the food being properly masticated and prevent it passing through the body in the form in which it entered it, and so without the animal deriving any benefit from his feed.

The most common items in the dietary of the light draught horse, such as omnibus and tramway slaves, are oats, maize, peas, beans, hay, and straw, the latter commodities being usually given them in

the form of chaff, though long hay is added to the daily bill of fare in some stables. Maize usually forms the principal portion of the food, as it is both inexpensive and filling, and assists the animal in keeping on his flesh; but oats, on the other hand, though not fattening, are, *par excellence*, the food to work upon, adding strength to the muscle and stamina to the constitution. Peas or beans are to be regarded as additional restoratives to the horse in work, but should be given sparingly when the animals are doing nothing. As may be imagined even by the merest novice in the methods of feeding horses, the appetites of different animals vary very considerably, some doing themselves well upon 10 or 12 lbs. of oats a day, whilst others of the same breed and height will require nearly half as much again to keep them in their full possession of health and strength. For a big hunter in hard work 15 or 16 lbs. of oats and about 10 lbs. of the best hay procurable, 3 or 4 lbs. of which may be given with the corn in the form of chaff, should do him well, and the substitution of a couple of pounds of beans for a similar weight of oats is a course to be recommended. This class of horse should on no account be given maize to eat, as it will affect his condition and stamina, but a periodical bran mash is to be recommended, and particularly after a hard day's work, though some experienced persons prefer boiled oats as being more sustaining to the animal. Carrots, but not too many, will also be found beneficial in cooling the blood, and, needless to add, these are much enjoyed by them. Linseed mashes are also recommended by many stud grooms, and others, again, uphold the virtues of a mixed soft feed of this article and bran.

Of the public bodies one of the London tramway companies was amongst the most liberal in their scale of diet, their allowance for each horse

per diem being something like the following:—Maize, 13 lbs.; oats, 3 lbs; peas and beans, 1 lb. each; hay, 7 lbs.; straw, 3 lb., the latter in the form of chaff, which gives a total weight of 28 lbs. Another Metropolitan tramway company gave maize, 7 lbs.; oats, 7 lbs.; beans, 1 lb.; hay, 11 lbs.; and straw, 3 lbs., thus decreasing the weight of the feed of grain, but adding to that of the hay; whilst the Dublin people allowed their horses 14 lbs. of maize, the Birmingham folks being the most liberal of all with their oats, as their horses each got 10 lbs. of this excellent food. Ten pounds of oats and 12 lbs. of hay is the ordinary allowance for cavalry horses; but during the period when their regiments are manœuvring or upon the march, the quantity of oats is increased by nearly 50 per cent. The Government ration is a very fair one, and so far as quantity goes might be reasonably applied to most private stables, were it not that the element of variety is necessarily missing, and therefore the addition of split beans or peas is recommended for harness horses in work when their condition has to be kept up. It is not desirable that much hay should be given during working hours, as it impedes the animal when moving about; but, upon the other hand, every horse requires a certain amount of filling food each day, and this is better for him after he is done up for the night. The advantages of frequent feeding in small quantities have already been alluded to, for the horse's stomach is not suited to remain long empty, and therefore the sooner after 6 a.m. that he gets his breakfast the better it will be for him. Four meals a day should suffice, and if he gets his allowance of hay after he has cleaned out his manger at night, he should carry on very well until the morning. Some animals, however, are very gross feeders, and regularly eat their beds; but this habit of devouring straw in large quantities can be

checked by the application of the muzzle or substituting peat moss or some other litter for the straw. Under no circumstances should any portion of a feed that is left over by the horse be permitted to remain in the manger, as it soon becomes fouled by their breath and totally unfit for consumption; so if you have a shy doer to contend with, and find it possible to manage it, the best thing to do is to reduce the quantity of grain and chaff in each feed, but give him it more frequently, say half a dozen times a day, so that he may be tempted into eating his full allowance, and so avoid losing flesh and strength.

Opinions differ a good deal regarding the watering of horses, some persons preferring that a supply should always be in every stall, whilst others advocate a drink being given when the horses come in from work, or before food, but never after the manger is cleared. No horse, however, should be allowed to drink cold water when he is much heated. If he is warm, give it him chilled, and be careful not to let him drink any which has stood in the stable all night, and which has thus become contaminated by the impurities springing from the exhalations of the horses; neither should he be given water which is drawn from a source to which drainage can possibly have access. If an animal is exhausted by the heat of summer, a double handful of oatmeal given in half a pailful of water will refresh him greatly; and if he comes in fagged by a hard day's work in autumn or winter, a drink of gruel will prove a very welcome and wholesome draught.

CHAPTER V

STABLES AND STABLE MANAGEMENT

THE first question which a prospective or any other horse owner should ask himself is—when he has decided upon buying a horse—"Have I a proper place to put him in?" So many animals are kept under insanitary conditions that it is more than possible that this mental cross-examination will quickly be answered in the affirmative, but that, unfortunately, by no means proves that the reply is correct. Most stables are sufficiently roomy, but it may here be mentioned that in "Light Horses" the minimum width of stalls is given as six feet and the minimum depth ten and a half feet, and, of course, in the case of heavy horses, more ample room should be allowed—but the size of the stable is not all that is necessary for the well-being of the occupants.

Ventilation is a most important, though much neglected, subject in connection with stable architecture, and it is a difficult matter to combine the outlet of foul air and the inlet of fresh with the avoidance of a draught that would affect the horses. The subject of ventilation, however, is so exhaustively dealt with in the volume just referred to, and it is of such vital importance to the health of horses, that it cannot be treated of within the limits of an elementary work; "Light Horses" should be

referred to by those who decide upon ensuring that the ventilation of their stables is to be complete. It may, nevertheless, be stated that horses, if well clothed, can stand a good amount of fresh air, provided always they are kept out of draughts, and that few things can be more prejudicial to their health than long confinement in a vitiated atmosphere. About twelve hundred cubic feet is a fair allowance of air for an ordinary sized horse, but if the figures could be extended by a quarter or a half, it would be greatly to the advantage of the occupants of the stable. The question of drainage is also one that should attract the attention of an owner, be he rich or poor, that desires to keep his animals in health and up to their work, and in this respect many stables are lamentably deficient. Fortunately, however, the horrible old-fashioned gulleys, in which the urine would remain for days contaminating the atmosphere, are falling out of use, their places being occupied by a more satisfactory arrangement, in which gratings and properly constructed drain-pipes form an important feature. It is, nevertheless, very frequently the case that these gratings and drains are permitted to become choked, so that the fluid which they are expected to carry away floods the stable floor, whilst in other instances there is a woeful disregard to all attempts at trapping the drains, the result being that noxious gases are freely admitted into the stables, to the great danger of the horses' lives. The prevention of such risks should unquestionably be the care of the owner of the animals, and the poorer he is the more reason it will be for him to endeavour to save himself from certain loss. The paving of the floor is, of course, a subject for careful consideration, and efforts should be made to ensure the horses getting a good foothold when passing to and fro between their stalls and the door, as well as to arrange for a durable substance

being laid down which will not absorb the moisture. Hard bricks and cement are both advocated for this purpose, but, if the latter is adopted, measures should be taken to ensure it being chipped and roughened so as not to form a slippery substance for the horses to walk over.

A dark stable is not at all a proper place in which to confine a horse, albeit that an ancient superstition still exists to the effect that it is more desirable to keep a horse in the dark than in the light. There is a medium in all things, naturally, and a glaring stable would no doubt prove unbearable to its occupants, but it is none the less barbarous to keep an animal in a pronounced state of semi-darkness. In the first place it is impossible to ascertain whether his stall or box is properly cleaned out, or that the animal is thoroughly groomed in the dim recesses of such a stable; and, secondly, the horse, being a sociable, not to say inquisitive, animal, enjoys seeing what is going on about him. Again, a horse that is suddenly brought from the gloom of a dimly lighted stable into the open air is naturally liable to be timid and nervous, with the result that, being ill at ease, he is unable to do himself full justice. Another very common form of cruelty practised through entire thoughtlessness is the practice of sloping the stalls from the head of the horse in the direction of his heels, the object being to permit the water to run off, but a moment's reflection would convince any one who cared to think that it is impossible for any animal to rest himself properly if his fore feet are raised some inches higher than his hind ones, as he would exist in a chronic state of standing uphill.

It is always desirable that the manger should be made of either iron or fire-clay, as both these substances are easier and more effectually cleaned out than wooden ones. The hay-rack, too, should

be placed, if possible, on a level with the manger, and it is a good plan to arrange for a water trough to be added alongside this, so that the animal can take a drink when he is desirous of doing so, a lid being provided to close the latter receptacle if he should come in overheated and so be likely to imbibe too freely. Every precaution should be taken to see that the headstall, which should always be made of leather, fits the horse properly, and that the logs at the end of the ropes or chains which connect them with the manger are sufficiently heavy to cause the ropes to tighten when the animal moves his head forward. If the ropes slacken there is always a risk of the horse getting his leg over them and being cast in his stall with possibly the gravest results. The clothing, except in the very warmest weather, and then a thin sheet may be used, should always be sufficiently thick to keep the horse comfortable, but of course the number and thickness of the rugs must depend upon circumstances, such as the ventilation of the stable, its size, and the number of horses it contains. If a plentiful supply of straw is provided for bedding, the animals will lie warmer than if peat moss litter is used, and the stable will look far smarter; but the latter substance is cheaper, and consequently some owners who study their expenditure are influenced thereby into using it. Sawdust is a still more economical and more objectionable substitute for straw, but it cannot be recommended as a litter for horses, save under most exceptional circumstances, as it blocks the drains, spoils the coats, and is very apt to get into and inflame the eyes. All droppings should, of course, be removed from behind the horse as soon as possible and conveyed outside the stable, whilst it is imperatively necessary that a periodical inspection be made of the drains in order to ascertain that they are in perfect working order and not clogged up.

The condition of a horse's coat, as is only natural, depends chiefly upon the amount of attention it receives from the groom, and the more strapping it gets the brighter it will look. Polish and elbow grease are, in fact, inseparably associated so far as horseflesh is concerned, but the owner who takes a pride in his stud should satisfy himself that his servants do their duty by their horses. Manes and tails are often most shamefully scamped when the morning's overhaul is in progress, and it often is found that the roots on the mane on the offside of the neck are abominably dirty through the laziness of the groom. In muddy weather, when a horse comes home plastered all over the belly and inside the thighs, he should not be washed, save the sheath, which should be well dried afterwards—but the mud should be brushed off when dry. If water is used much fever is likely to ensue, and the consequences will be unpleasant both to man and beast. A horse that comes in heated should be taken direct to his stall, and not be allowed to stand about outside in the cold to catch a chill. If he is in saddle, the girths should be loosed a little and the saddle moved back an inch or two, and under any circumstances a rug should be thrown loosely over him to prevent him taking cold whilst the sweat breaks out. When it has done so, and he is cooling, he may be strapped dry and have his feet washed out, and his legs bandaged if he is accustomed to wear them. Bandages are very useful appliances for light horses, and especially for such as are in hard work, as they assist in keeping the legs in good order, and no doubt contribute to the comfort of the wearer; consequently their general adoption may be advocated. A horse that eats his bed should always be muzzled at night, for the practice is a most annoying one to his owner, who, when he possesses such an animal, may almost be excused if he adopts peat moss as his litter; but

crib biting is a vice of such proportions that it may be legitimately included in the category of diseases which are practically incurable. A great deal of trouble is frequently caused by the presence of a kicker in the stable, especially as such a horse—some of which will keep the game up all night long—are very liable to injure themselves or their stable companions through their vagaries. A truss of straw suspended at the back of the stall a foot or two behind his quarters will sometimes effect a modified remedy, as, in the first place, it cannot injure him when he kicks it, and, secondly, every time that he does so it swings back against his hocks and upsets his equanimity. Consequently the kicker sometimes gets tired of attacking the harmless straw, which emits no responsive sound to his attentions, and he then composes himself to rest and permits his companions to do the same.

Crib biting is the name by which a most nasty and annoying habit is usually known. It consists of the horse taking hold of the manger or some projecting part of the front or sides of his stall with his teeth and sucking air into his stomach, giving a peculiar grunting sound meanwhile. A muzzle is the best prevention, but is not always efficacious, and the animal may be turned into a box with smooth sides and fed off the ground; but crib biting is, like other bad habits, a very difficult one to cure. Wind sucking is even worse, as a proficient in this most undesirable accomplishment sucks in the air through his tongue, and, like the cribber, is better sold forthwith without a warranty.

CHAPTER VI

BITS AND HARNESS

THE question of bits is a difficult one to write upon, as horse owners are very divided in opinion on the subject; but it is safe to say that, as a rule, the vast majority of light horses go about their work very much overbitted. This is partly due to ignorance on the part of their owners; but even well-informed persons, who know better, are often offenders in this respect, as, in the first place, people consider that a horse cuts a more imposing figure if his mouth is filled with iron, and, secondly, a severe bit has the effect of causing him to fidget and fret, which conveys to the public the erroneous impression that the animal is possessed of an inordinate amount of fire and mettle.

It is quite impossible in an elementary work to attempt to enter upon a description of all the many bits which are used at the present day, and still less is it possible to give a list of the scores of inventions which from time to time have been foisted upon the public as being necessary for the well-being of horse-flesh and the comfort or safety of riding and driving men. At the same time, still harping upon the inadvisability of overbitting, it may be stated, as a matter of opinion based upon experience upon the part of the writer, that nine-tenths of the horses now at work will shape better and be far more comfortable if plain snaffles were in their mouths. Many a

hard pulling or reputedly evil-tempered animal owes his bad name to the fact that his mouth, originally a tender one, has been utterly ruined by injudicious bitting, and cases have been known by the dozen in which horses with very bad reputations have become completely reformed characters through the substitution of snaffle for the severe bits which have been previously forced upon them. After the snaffle comes the Liverpool bit as a safe and moderate invention, and this can be strongly recommended for general purposes, whilst both the Pelham and massive elbow bits find many supporters amongst driving men. Such abominations as that instrument of torture the Hanoverian bit, with a post of inches deep and occasionally garnished with a set of barbarous keys, should never be adopted by the amateur without due consideration and the advice of experienced friends, for though it is admitted that very exceptional cases deserve very exceptional treatment, it is equally true that a punishing, cruel bit is quite as likely to do harm as it is to be productive of good results. In the case of hard pullers a noseband or a net will in ninety-nine cases out of a hundred effect all the required results, and the owners of these animals can possess the satisfaction of feeling that their horses are not being the victims of unnecessary punishment.

Bearing reins have been the subject of more attacks from without than any other article of equine furniture, and beyond all doubt in many instances the opposition has been based on solid grounds. At the same time a great deal of nonsense has been written concerning bearing reins, which in some cases are extremely useful, and cause very little inconvenience, if any, to their wearers, if not buckled up too short. If they are they are cruelly oppressive to the horse, and few sights in the Park during the season are more offensive to the humane man than the spectacle of a landau pulled up on the rails and

the wretched horses suffering torture owing to their heads being braced back, whilst the occupants of the carriage are exchanging sweet courtesies with their friends. The addition of a bridoon bit is by no means necessary, and no doubt this adjunct of the bearing rein has been the cause of much of the opposition which has been directed against the latter.

There is, however, another form of annoyance and inconvenience to horses which has seldom been noticed by writers, and that is the disposition shown by many coachmen to draw the throat latch so tight as to cause a considerable amount of discomfort. Of course the throat latch is a necessary adjunct of the harness, and if not buckled sufficiently tight, it would become useless; but, as in the case of the maligned bearing rein, there is a limit to its shortening, and when that limit is passed, unpleasantness, succeeded by downright inconvenience, commences.

Blinkers, or winkers, as many persons style them, have upon many occasions been attacked as being unnecessary additions to the harness of a horse, and these attacks have been strengthened by the comparison which has been drawn between their non-adoption on the grounds of their inutility by riding men. At the same time it is generally believed that they diminish the chances of injury to the eye, and contribute to the safety of the driver owing to their preventing their wearer from seeing too much of what is going on, and thereby taking fright.

A martingale is a very useful piece of harness when a horse requires one, and some do; but to proceed to the other end of the animal, breeching is not necessary except in hilly countries, when it unquestionably adds stability to the equipage, and reduces the risks of trouble arising when going downhill.

One point more in connection with harness may be referred to, and though kept until the last, this is by no means the least important one, either from an

utilitarian or humanitarian point of view. This is the fit of the collar. If too tight the disastrous effects soon become apparent, as the animal gets half choked, and the risks of megrims occurring are rendered quite probable. On the other hand, a loose collar is a fruitful cause of sore shoulders, and therefore the owner should exercise as much care in seeing to the fit of his horse's collar as he does to that of his own boots. Indiarubber collars are not to be recommended unless under very exceptional cases, as they do not absorb the perspiration, and chafing is therefore encouraged. It should be remembered too that when a collar is taken off, it should be given a chance to dry, as if put on wet the next day it is obviously very likely to injure the skin. The collar, therefore, should be hung up on a peg situated in as airy and dry a position as possible; and it may be added that it is always a bad practice to keep harness in the stable with the horses, as it simply spoils through the heat and also by contact with the exhalations of the animals.

In well-conducted establishments, not only should the harness be cleaned daily, but every part of it should be taken to pieces at least once a fortnight, and once a week is better. This prevents the buckles wearing into the leather and affords an opportunity for a thorough cleansing; but it may be added that the owner who insists upon this practice being carried out is not likely to be in sympathy with his groom, for, easy as it is to take a set of harness to pieces, it requires time to put it together again.

CHAPTER VII

CARRIAGES

THE selection of a vehicle is of course a matter for the purchaser to decide upon for himself, but when he has procured the conveyance of his choice, many a horse owner has no idea at all how to keep the same in order. A few short directions upon the housing and management of carriages may therefore be useful to the amateur, though anything in the nature of an elaborate treatise on the subject would be out of place.

Assuming that the carriages are, as usual, painted and varnished, they should be kept in an absolutely dry and fairly warm coach-house, which is all the better for being kept nearly dark. The varnish, in fact, is likely to suffer if exposed to cold, and damp is certain to injure the vehicle and the cushions. It is desirable also that a properly constructed sheet should be kept over the carriage or other vehicle when it is not in use, and it should not be put away for the night until it has been properly dried if it can possibly be avoided.

Many carriage washers are far too fond of using spoke brushes to remove the mud from the wheels, but a leather performs the duty equally well, although giving more trouble, and is consequently to be preferred, as by its adoption in preference to the spoke brush the paint and varnish does not get knocked about. Of course all mud and dust should be

removed from the under-carriage and head, a hose being very useful for effecting this object in the first place, as even the application of a soft leather is apt to scratch the paint if the mud is gritty. The leather head of the vehicle should be carefully dried with cloths before putting the carriage away, and of course the lining and cushions should be carefully brushed, and the steps blackened so that all may be ready if there is a sudden call.

If mud is left to dry on there is always more trouble to remove it than if it was washed off at once, and every coachman will admit that there is less injury to the woodwork if this plan is followed.

Few things are more injurious to a carriage than exposing it to the aroma of the stable, and therefore the coach-house should be an isolated building, communicating with the harness-room by a door. As there is usually a stove burning in the latter apartment in well regulated establishments, the warmth of the harness-room will extend to the coach-house in wintry weather; the door of communication is left open, and so both the carriages and harness will remain in good condition.

As regards the treatment of the iron-work of the under carriage, every care must of course be taken to see that it is put away dry, and that it is not allowed to suffer from the want of a sufficient supply of lubricating appliances. One of the best things for these parts of a vehicle is ordinary castor oil, which can be applied with a feather, a great advantage of the castor oil being that, whilst it ensures smoothness in working, it does not clog as does grease.

CHAPTER VIII

SHOES AND SHOEING

So many inventions in the shape of improved shoes have been brought before the public of late years that the latter must almost be weary by this time of experimenting upon discoveries of the sort. The fact, moreover, remains that the old pattern has always been returned to, and it seems extremely improbable that anything has yet been, or is likely to be, invented that will wrest it from its present position, and consequently it is unnecessary to write much upon the subject.

Most of the troubles attendant upon shoeing undoubtedly arise from the carelessness or inefficiency of the smith, especially as these artificers are wont to ruin the feet of many thousands of horses annually by fitting the hoof to the shoe instead of *vice versâ*. This is, of course, done to save themselves trouble, but the careful owner should adopt methods to prevent the soles of his horse's hoofs being whittled away by injudicious paring in order that a lazy workman may be spared the necessity for exerting himself. The practice, too, of applying a very hot shoe to the foot to see how it would fit is far more honoured in the breach than in the observance, as the horn gets dried up by the heat, and consequently where horses are sent to be shod, they should be accompanied by a reliable groom

who can be depended upon to see that they are not ill-used.

Much of the injury that is caused in the above way is due to the fact that large quantities of ready-made shoes are imported from abroad, and the disinclination on the part of the smith to alter them properly to the shape of their wearer's hoof; owners, therefore, should be careful, if they value their horses, to patronize good men in the shoeing line, as even if they have to pay a little more money for his services and workmanship, they will save in the long run.

Such surgical appliances as bar shoes and side clips are necessary in the case of diseased feet, and these should always be supplied by a thoroughly competent workman, else the evil will certainly increase, and the horse become permanently unfit for work.

CHAPTER IX

DISEASES AND ACCIDENTS

THE writer of an elementary work of this description must almost of a necessity find himself compelled to devote a certain portion of his space to the consideration of the common ailments of horses, and to the treatment of the numerous accidents which beset the equine race. At the same time he is confronted by a serious difficulty which is doubtless felt by all writers upon veterinary subjects, namely, that although the amateur may be perfectly well able to treat the sick animal when he has made up his mind as regards the nature of its disease, the correct diagnosis of the complaint is a very different matter. Indeed, the preliminary symptoms of many diseases are so very similar in character that the expert is not infrequently in doubt during the earlier stages; and consequently what possible chance can the tyro possess of diagnosing correctly until the disease has made good headway, and consequently becomes more difficult to check. It is, therefore, best for the beginner to bear in mind that if his horse is worth saving at all it is wise to avail himself of the services of an experienced veterinary practitioner as soon as he has convinced himself that his horse is out of sorts. If it is only a slight cold the outlay will be a small one, but, on the other hand, if it should be the beginning of an illness, both time and money will be gained by the early appearance of the doctor upon the scene.

On the other hand, there are many persons who live miles from veterinary aid, and of course these owners are compelled to do the best for themselves under the circumstances in which they find themselves placed. For the use of these gentlemen, therefore, the following lines are penned in the hope that they may prove of service pending the arrival of the duly qualified veterinary surgeon.

Contagious Diseases

The following are the two most serious of all the contagious diseases of horses, and as both of them come under the Contagious Diseases Act, the appearance of either of them in a stable should at once be notified to the local authorities, the penalty for default being very heavy.

Glanders or Farcy which may be regarded as practically identical, are accompanied by a yellowish sticky discharge from the nostrils, this gleet being of a highly dangerous nature, and swelling of the glands between the lower jaws. The respiration is also affected, the coat becomes dull, and very frequently the horse suffers from a short peculiar cough—occasionally the practised eye of the professional man can detect ulcers in the nostrils, and swellings succeeded by sores break out on the limbs. There is no cure for Glanders or Farcy, and the animal should be slaughtered at once, and buried in quicklime; the greatest care being taken to thoroughly disinfect his stable and the utensils therein, whilst all the litter and his clothing should be burned. As these diseases are readily communicated to man and other animals, it is impossible to adopt too many or too stringent precautions in dealing with a horse affected by them.

Rabies.—This is another incurable disease for

which the so-called friendly bullet is the only remedy, and is generally the result of a bite from a rabid dog. The chief symptoms are the paroxysms of fury which possess the horse at intervals, these usually being preceded by a period of dulness and depression. When they appear the victim bites at everything, and throws himself upon the ground, and, in fact, appears to be the frenzied creature which he is. It is a popular delusion that rabid animals must necessarily shrink from water, as they are consumed by an insatiable thirst which they are prevented from relieving owing to the paralysis of the muscles of their throats.

Mange is another disease which one horse can readily communicate to another, but it exists in so many forms that the treatment of an attack should be entrusted to a professional man, the patient being carefully isolated until his arrival, and its own clothing, harness, and stable utensils being separately stored.

Vermin, though scarcely a disease, can be caught from a stable companion, or by occupying an infected stall, but they have no right to appear in any well-conducted establishment. A good remedy for these pests is to rub and brush paraffin and train oil, equal parts, thoroughly into the coats, and when the insects are destroyed the horse may be well washed in soap and water.

Ringworm is another result of keeping dirty company or standing in an infected stable, and in the early stages may be cured by an application of paraffin or sulphur ointment; but, being a most contagious disease, it is best to obtain professional advice. The stable and everything the horse has touched should be most thoroughly and completely disinfected, and the animal's attendant should be careful to avoid touching the infected parts.

Puerperal Fever being a very serious matter

and a difficult ailment to cure, it should be treated by a veterinary surgeon, the patient being kept isolated and warm, and her strength kept up until his arrival by draughts of gruel in which a little whisky or port wine may be mixed; whilst the womb should be frequently syringed out with a weak solution of Condy's Fluid and laudanum.

Diseases of the Blood.

Blood poisoning is usually the result of some dirty matter getting into wounds, whilst pyæmia is caused from pus from a wound being absorbed into the system. The symptoms are shivers, lowness of spirits, and a general air of languor and illhealth. Of course, this is not a case for the amateur to attend to; but until the arrival of proper assistance the wound may be cleansed and a little carbolic acid and glycerine applied to it, whilst every three or four hours a drench of gruel mixed with some port wine or whisky may be given.

Lockjaw is not so rare amongst horses as many people may imagine, and it may be detected by the difficulty the animal experiences in opening its jaws, and the stiffness of all his muscles. Cures are by no means frequent; but keep the horse quiet until professional aid arrives.

Strangles is by no means an uncommon disease, as many horsekeepers have realized to their sorrow, and, indeed, might have been included amongst contagious diseases, as it is often handed on from one animal to another, young horses being the principal victims. A staring look and a difficulty in swallowing, owing to the soreness that arises from the swollen glands of the throat, are the preliminary symptoms, and these are succeeded by a discharge from the nostrils and a cough. The best thing to do is to keep the animal warm and quiet when an owner

satisfies himself that he is dealing with a case of strangles, and feed on crushed oats, meadow hay, and bran. The throat may be poulticed, either with linseed, bran, or mashed turnips, until they break, and three drams of chlorate of potash may be given in the food or water. If there is much weakness eggs beaten up in new milk or gruel may be given, and to this rather less than half an ounce of dialyzed iron may be given if the patient is young; if he is adult a full half ounce is the dose.

Navel ill may easily be detected by the inflammation and suppuration of the navel of a newly born colt or filly. It may be treated by dressing the navel twice a day with carbolized oil and placing a linen pad upon the sore, which can be kept in its position by a calico band passing over the back like a surcingle. It being a somewhat risky matter for the amateur to attempt to prescribe for a young foal, it is well to seek assistance if internal remedies appear to be necessary.

Diseases of the Respiratory Organs.

Pneumonia, or inflammation of the lungs, is usually the result of a chill, its symptoms being coldness of the ears, a difficulty in breathing, and a peculiarly dull, inflamed look about the eyes and mouth. Sometimes there is a cough and sometimes not, so there is no reliability upon the presence of this in attempting to diagnose the disease. The horse should be put in a warm, but not a stuffy box, as plenty of fresh air will assist the cure if there are no draughts. He should be well clothed, and after his legs and ears have respectively been rubbed and pulled so as to get warm, the former may be bandaged and, in fact, everything should be done to make him comfortable. Belladonna, $\frac{3}{4}$ of an ounce, tincture of aconite, 30 minims, 3 ounces acetate of ammonia, and a little

sweet nitre may be given every 5 hours, and about 3 drams of chlorate and nitrate of potash should be added to the drinking water. In the early stages of the disease mustard poultices applied to the sides give relief, but they should be discontinued later on. On recovery, cod liver oil in four-ounce doses may be given twice a day.

Bronchitis is generally caused by exposure to cold, though attacks can be traced to other causes. The surest symptom is a distressing and almost incessant cough. The inhalation of steam gives relief, and this treatment may be applied, pending the arrival of professional assistance.

Roaring is an infirmity which is familiar to every horse owner, and can only be cured by an operation which it is quite beyond the power of an amateur to conduct.

Broken wind is also, to all intents and purposes, incurable, but its progress may be checked by a course of judicious feeding on moist, but not necessarily wet food, whilst occasional doses of cod liver or linseed oil will be found to give relief. Dusty food should always be avoided, and the animal should not be set to work hard upon a full stomach, this being a by no means infrequent cause of broken wind.

Diseases of the Legs and Feet.

Unfortunately for owners, most horses cause trouble in their legs and feet at some time or other of their existence, and unless the troubles are taken in hand in time they generally increase until a serious injury has been caused the animal.

Splints are amongst the most frequent affections of the leg, and consist of bony growths on the long bone between the knee and the fetlock, whilst sometimes they appear on the back legs below the hocks.

Most of the importance of a splint lies in its position, as, if one appears near the knee or tendons, lameness is a pretty certain result, and under any circumstances a considerable amount of inflammation is caused whilst they are developing, and consequently they should be attended to as soon as they are discovered. The best treatment during the early stages is cold water bandaging and lotions, whilst later on biniodide of mercury or iodine ointment may be applied.

Spavins, too, are very troublesome affections of the legs, the bone spavins being a bony growth on the inside or inside front of the hock, and a very fruitful source of lameness, as it causes a good deal of inflammation. In treating bone spavin Goulard's water and laudanum compose an admirable cooling lotion during the formation of the growth; but when the latter is once thoroughly developed the only resources left are blistering or the firing irons. Bog spavin is a soft swelling on the inside front of the hock, and sometimes goes by the name of wind spavin, owing to its appearing to the touch as though it were filled with air. This is not anything like so serious a matter as bone spavin, and may be treated with iodine ointment.

Ringbone is a bony growth on the long pastern bone, and may be either at the upper head or lower head of the bone, or on the shaft of the same, in which case it is usually known as false ringbone. The growth need not entirely encircle the bone, but it frequently does so, and it may be caused either by injury or by hereditary tendency, and very frequently by the latter. The treatment is similar to that recommended for splints, and leather or indiarubber pads between the hoof and the shoe may be used to prevent concussion.

Side bone is described by Mr. Archer as calcification of the cartilage or gristle which is attached to

the upper and posterior part of the footbone, and arises from similar causes as ringbone. The treatment is also similar; but side bones are occasionally successfully operated upon by skilled veterinary practitioners.

Sand cracks are the splits or crevices which appear on the hoof from the coronet to the sole, and usually are to be found on the inside quarter of the fore feet and front part of the hind ones. They are generally the result of concussion on hard ground; and as the separated hoof fibres will not reunite, the only possible treatment is to prevent the fissure extending by the adoption of a bar shoe in front or specially designed clamps behind.

Seedy toe consists of a diseased state of the inside of the hoof and sole, the parts becoming disunited and the space thus formed being filled with a dark crumbling substance. All this should be got away and the space disinfected with carbolic acid, the space being then filled up with a plug of Stockholm tar and tow, this dressing being repeated every four days. The shoe may also have side clips instead of a front clip.

Thorough pin is the name given to a swelling on the upper part of the hock, which usually extends from the outside to the inside, and may be treated similarly to bog spavin, the causes from which it arises being very much the same.

Quitters are usually the result of gathered corns, the matter from which forces its way up to the coronet, where it escapes.

Swelled legs may result from too much work when out of condition, too little healthy exercise, or weakness of the system, and are the result of the congestion of the blood-vessels of the legs. They should be treated by plenty of hard rubbing and dry-bandaging, but in severe cases the following lotion may be applied—

Dilute acetic acid	8 ounces.
Chloride of ammonia powdered ...	1 ounce.
Spirit of camphor	1 ounce.

Gentle exercise should also be given.

Thrush consists of a disease of the glands of the frog, a pale-coloured, evil-smelling fluid issuing therefrom. An usually efficacious treatment is to dust calomel into the aperture every other day for a week, and then to apply the following ointment—

Burnt alum powdered	2 ounces.
Sulphate of copper powdered	2 ounces.
Sulphuric acid	1 drachm.
Stockholm tar	6 ounces.

Mix this well, and push some daily on a piece of tow into the opening in the frog.

Capped hocks are the soft swellings which remain as the permanent results of bruises to the front of the hock, and, though unsightly, do not generally affect the working power of the animal. They may be treated with cooling lotions, and, when the inflammation has subsided, with iodine ointment.

Shoulder sores are usually the results of badly fitting or dirty harness, and may be treated by applying the following lotion three times a day—

Solution of subacetate of lead ...	1 ounce.
Solution of sulphate of zinc	1 ounce.
Water	1½ pints.
Glycerine	3 ounces.

Plain water dressings should be avoided.

Sallenders are the cracks which sometimes appear in the skin behind the knee, whilst *mallenders* are similar cracks on the front of the hocks. Over-fed horses are the usual victims of these, the best application being the following ointment—

Carbonate of lead	½ ounce.
Carbonate of zinc	½ ounce.
Vaseline	4 ounces.

Chapped or cracked heels are usually the result of cold and mud. They should not be washed, but wiped free from mud with a dry cloth, and a dry poultice formed of equal parts of bran and oatmeal may be applied. The following ointment, however, will very often be found sufficient to effect a cure, and some may be applied night and morning—

Carbonate of lead	1 ounce.
Iodoform	½ ounce.
Vaseline	4 ounces.

String halt is the name given to the unsightly jerk or snatch which is occasionally given to the knee, but more commonly to the hock by some horses, and is practically incurable.

Mud fever is the result of mud being splashed on the legs and belly, and causing chill and irritation. The horse should not be washed except upon the sheath, but the mud should be brushed off when dry, and the lotion prescribed for shoulder sores applied.

Laminitis, or fever in the feet, is caused by an insufficient amount of exercise, working on hard roads, high feeding, and other similar causes. The fore feet are the most commonly attacked, and the presence of laminitis may be detected by the disinclination which the horse shows to move, and the tender way in which he puts his feet down. The latter are very hot to the touch and evidently tender, and consequently the sooner the shoes are taken off the better, and poultices should at once be applied. If the bowels are confined, opening medicine should be administered, and in some instances bleeding is resorted to as a means of producing relief and subduing the inflammation. A ball of calomel, 2 scruples, and powdered opium is, however, usually given as a preliminary measure. Subsequently the coronets may be blistered.

Diseases of the Digestive Organs.

Indigestion is common amongst horses, and can usually be detected amongst over-fed animals by loss of appetite, a disinclination to move, and coldness in the body and limbs. An ounce of aromatic spirits of ammonia in a quart of ale will afford relief; and afterwards a pint of castor oil, which has been warmed, may be given with the best results.

Stoppage of the bowels is soon detected, and provided that it is not caused by the presence of a stone, or bone, or some abnormal growth, can usually be treated successfully by a dose of castor oil and aloes, about one pint of the former and five drachms of the latter. The horse should be kept warm, but he should be compelled to move about slowly a few times a day, and evidences of inflammation should be looked for if his condition does not mend.

Inflammation of the bowels, enteritis, is not particularly easy to detect, as the horse does not usually suffer very acute pain, though the latter is continuous and not spasmodic, the ears and legs being very cold, and the droppings scanty. Hot fomentations to the stomach and mustard poultices should be applied, and the invalid kept warm until professional aid arrives, the necessity of the latter being imperative.

Colic or gripes may be produced by cold water being imbibed or improper feeding, and is most painful whilst the spasms last. Upon an emergency hot beer or gruel, in which a little ground ginger and some sort of spirits are mixed, will be very likely to afford relief; but a surer remedy would be a draught composed as follows:—

Turpentine	1½ ounce.
Aromatic spirits of ammonia	¾ ounce.
Laudanum	1¼ ounce.
Linseed oil	1½ pint.

Diarrhœa can be detected by the merest amateur, but the causes of the ailment may require some difficulty and experience to define. As a preliminary measure, however, either 1 pint of castor oil or 1½ pint of linseed oil may be given. This should be succeeded by doses of the following every few hours, administered in starch gruel :—

Prepared chalk	1 ounce.
Catechu in powder	½ ounce.
Ginger	¼ ounce.
Opium	½ drachm.
Peppermint water	½ pint.

Peritonitis or inflammation of the lining of the abdomen may be caused by a cold or an injury. It is accompanied by great tenderness of the stomach, which increases when the horse moves, even the action of breathing being painful to him. This is a case for professional assistance ; but warm clothing, particularly over the stomach, and frequent draughts of

Acetate ammonia	3 ounces.
Sweet spirits of nitre	1 ounce.
Tincture of aconite	30 minims.

will probably give relief.

Other Common Diseases.

Lampas, or inflammation of the gums, often appears when the milk teeth are being shed, and though it can scarcely be regarded as a disease, it is so common that it may be referred to. The treatment which usually succeeds best is to score the gums slightly with a sharp clean knife, and add a little saltpeter to the drinking water for a day.

Staggers is the result of a rush of blood to the head, and generally attacks horses in very hot weather, causing them to stagger and often fall. The application of cold water or ice to the head gives

temporary relief in most cases, but in more severe ones the patient should first be bled, and then given a mild purgative, being kept very quiet for a few days.

Megrims is a somewhat similar ailment to staggers, but of a far less serious nature, harness horses with tight-fitting collars being the most common victims. The animal attacked will stop suddenly and shake his head; then perhaps he will stagger a little or run backwards, sometimes falling and generally breaking out into a sweat. The harness and collar should be loosened, and the sooner he is taken home for rest and quiet the better; after this the horse will probably quite recover.

Vertigo is very similar to megrims, but it sometimes attacks the animal in the stable as well as out of doors, and is usually cured by a liberal diet and quiet.

Yew-poisoning. Occasionally when horses are turned out they will find yew and eat it. The poison usually affects its victim rapidly, the chief symptom being extreme drowsiness and a disinclination to move. A pint of warm castor oil, in which one ounce of aromatic spirits of ammonia and some whisky have been mixed, should be administered promptly and repeated several times, whilst the animal should be compelled to move about.

Congestion of the liver is usually the result of a chill and should be attended to by a professional man. The symptoms are lethargy, a coldness of the body, and dark-coloured water and dung. A mustard poultice over the liver often brings relief, and a mild purge may be administered before the veterinary surgeon arrives, unless he is close at hand.

Warts may usually be treated on their first appearance by a dressing of chloride of ammonia one part, powdered savin two parts, and vaseline sufficient to make a stiff paste. Excision by a knife is best left to a professional man.

Worms are often terrible nuisances to horses; they exist in different forms, but may be expelled by a ball made up of 40 grains of santonine given after fasting for a few hours. Two days afterwards the following drench may be administered, also on an empty stomach:—

Turpentine	1½ ounces.
Tincture of asafœtida	4 drachms.
Linseed oil	1½ pints.

Subsequent to this, two drachms of sulphate of iron may be given once a day in the food for a fortnight.

Accidents.

There are, unfortunately, very few stables, however small, in which at least one or two accidents do not occur each year, and as such disasters are events which usually require immediate treatment pending the arrival of professional assistance, they may be dealt with here.

Bruises are perhaps the most common of all accidents, as they are usually the least important if taken in hand in time, and may be treated by applying hot fomentations, which may be succeeded by cooling lotions.

Sprains and strains may be similarly treated, an excellent lotion for cooling purposes and reducing the tendency to inflammation being that recommended by Mr. A. H. Archer, M.R.C.V.S., in his "Practical Veterinary Advice to Stockowners." This consists of—

Subacetate of lead	½ ounce.
Spirits of wine	½ ounce.
Water	1 pint.
Laudanum	1 ounce.

After the tenderness has ceased to exist, the affected part may be rubbed with opodeldoc or

Elliman's embrocation, this treatment being succeeded by a blister should the horse continue lame.

Broken knees are always annoying, generally troublesome, and often extremely serious accidents, the degree of mischief depending upon the depth and situation of the wounds. Under any circumstance they should at once be washed and all grit and dirt removed; and if the horse is far from home and blood is flowing, it is desirable to tie a handkerchief tightly a little way up the limb and above the wound so as to check the flow. If the joint is not affected a poultice or warm fomentations may be applied when he gets back to his stable, and the cooling lotion prescribed above applied, the laudanum not being added if there appears to be but little pain. If the joints are affected the warm applications had better not be used, but the cooling lotion, to which one ounce of acetic acid may be added, should be applied frequently.

Flesh wounds, if deep, may be kept open by pushing into them some tow which has been soaked in carbolized oil, which can be done by means of a quill; and if the stomach or chest is pierced a pad of linen should be placed over the wound and kept in its place by a bandage.

Wounds in the feet should first be poulticed, and then dressed with carbolized oil.

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